

TRAVEL DEMAND MANAGEMENT MANUAL

VERSION 1 – EFFECTIVE FROM 1 NOVEMBER 2007



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MANUAL

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**MANUAL MANAGEMENT PLAN:
TRAVEL DEMAND MANAGEMENT MANUAL TDM01**

National Office

PSIS Building, Level 9,
20-26 Ballance Street,
PO Box 5084,
Wellington 6145

Tel 64 4 499 6600

Fax 64 4 496 6666

1. PURPOSE

This Manual Management Plan details updates, amendments and contact points for the Travel Demand Management Manual.

2. DOCUMENT INFORMATION

Manual Name Travel Demand Management

Manual No. TDM01

Availability This manual is located in electronic, PDF format on the Transit website at: <http://www.transit.govt.nz/technical/manuals.jsp>

Manual Owner National Travel Demand Manager

Manual Sponsor General Manager Transport Planning

3. AMENDMENT AND REVIEW STRATEGY

Any feedback or proposed changes to the document should be sent to the Manual Owner who will acknowledge them within 5 working days.

	Comments	Frequency
Amendments (of a minor nature)	Updates to information of a minor nature will be incorporated immediately they occur.	As required
Review (major changes)	Amendments fundamentally changing the content or structure of the manual will be incorporated as soon as practicable.	Annually
Notification	All users that have registered their interest by email to @transit.govt.nz will be advised by email of amendments and updates.	Immediately

4. OTHER INFORMATION

5. DISTRIBUTION

1

INTRODUCTION TO MANUAL

1.1 FUNCTION

The principal function of this manual is to provide practical advice and assistance to Transit staff in interpreting and putting into practice Transit's Travel Demand Management Policy. The overall objective is to ensure that travel demand management principles are considered across all Transit's work and applied at every appropriate opportunity. It will also inform our transport partners, developers and the public of Transit's position on and approach to managing the demand for travel. These functions are set out in detail below.

Communicating TDM

To communicate clearly to our staff, our transport partners and the general public what managing travel demand means to Transit and the central role it plays in Transit's business of planning, building, maintaining and operating the state highway network.

TDM toolkit

To supply Transit staff with a 'toolkit' giving guidance on how travel demand management can be practically progressed, developed and implemented across our various work areas.

Consultations

To support Transit staff when responding to policy consultations by external agencies. This will ensure Transit's interests are represented in national, regional and local policy making. A nationally consistent approach can therefore be achieved.

Land use development processes

To support Transit staff when participating in land use development processes and when communicating to partner agencies Transit's travel demand management approach under the Resource Management Act.

TDM project communications

To inform our partners and the public of Transit's short, medium and longer term commitments to delivering demand management projects as well as how we will monitor and report on progress.

Understanding

To help our partners and the public understand Transit's direction for managing the state highway network and the role they can play.

1.2 AUDIENCE

Following on from this, the target audience for this document falls into the following categories:

Transit staff

Will use the document to assist them in incorporating the principles of managing travel demand across Transit's work.

Transit's transport partners

Will have a clear understanding of Transit's position on managing travel demand. This should ensure common objectives are identified and progress towards them can be made based on a multi-agency approach where appropriate. Partners include:

- Ministry of Transport;
- Land Transport New Zealand;
- Local authorities (territorial authorities, regional councils and unitary authorities);
- Auckland Regional Transport Authority;
- Transport sector organisations and interest groups such as the Freight Transport Association, walking and cycling groups;
- A number of other organisations which although not directly involved in transport delivery, have an interest in this area such as Ministry for the Environment, Local Government New Zealand and iwi.

Developers

Will have a raised awareness of Transit's expectations for managing the demand for travel when land development is likely to impact on state highways.

General public

Will have a raised general awareness of Transit's responsibility for managing and operating the state highway network to meet the country's transport needs in accordance with the government's overarching principles.

1.3 STATUS AND STRUCTURE

Status

The TDM Policy contained in this document will support the promotion and implementation of travel demand management across Transit's work. The guidance contained in the manual represents recommended good practice in taking forward and implementing the TDM Policy. The Travel Demand Management Manual accords with the requirements of Transit's Standards and Guidelines Manual.

Next Steps transport sector review

A multi-agency review of the land transport sector led by the State Services Commission entitled *Next Steps in the Land Transport Review* reported in April 2007. One of the recommendations coming out of that review was that Transit and Land Transport New Zealand should merge to form one Crown entity that considers all transport modes and activities. This merger requires enabling legislation and is scheduled to be in place for July 2008.

It is likely that this manual will need to be reviewed following the forthcoming merger to ensure it adequately reflects the wider functions and responsibilities of the new Crown entity. Until that time however, the manual is current operational policy for Transit and should guide and influence all Transit's work in implementing and promoting travel demand management.

Structure

The manual is structured in the following way:

Section 2 defines what travel demand management is and covers Transit's role in taking this forward.

Section 3 provides the detail of the various types of demand management measures and practical guidance on when it is appropriate to apply these measures and initiatives.

Section 4 sets out Transit's demand management Implementation Plan covering the key pieces of work to be taken forward across the country.

Section 5 identifies the performance indicators against which Transit will measure progress for travel demand management and outlines the reporting process for these.

Glossary of terms and definitions

Transit has generally used non-technical language in this document. The use of some technical terminology and acronyms however, is unavoidable. A glossary is provided in Appendix 1.

Note

It should be noted that this document does not provide detailed design guidance on specific travel demand management features. Reference should be made to Transit's Geometric Design Manual or equivalent good practice in use by Transit. It also does not provide the wider land use planning context and policy. For information on this reference must be made to Transit's Planning Policy Manual (PPM). For guidance on roadspace allocation under Transit's network operations functions, reference should be made to Transit's State Highway Control Manual.

2

INTRODUCTION TO TRAVEL DEMAND MANAGEMENT

2.1 THE CHANGING TRANSPORT ENVIRONMENT

New Zealand's new approach

Travel demand management (TDM) is relatively new to New Zealand. The New Zealand Transport Strategy (NZTS) and the Land Transport Management Act 2003 provided the catalyst for a rethink of how transport issues are tackled and ultimately how our future transport system will look. The Government target of halving per capita domestic Greenhouse gas emissions by 2040 provides further impetus for action. Travel demand management has the potential to help shape that future transport system in a way that contributes to the objectives set out in the NZTS, and reduces CO₂ emissions from transport.

Transit's new approach

More recently, Transit's National State Highway Strategy (NSHS) encapsulates how Transit will operate to fully contribute to the objectives of the NZTS. One of the principles embedded within the NSHS is that of demand management. This manual provides the detail on how Transit will manage the demand for travel on the state highway network and how we will engage with our partners in supporting their work in managing travel demand.

Expectations of the Minister of Transport

The Minister of Transport wrote in April 2007 to the Transit Board setting out her expectations for 2007/08. In that letter the Minister stated that "mitigating the impacts of the transport sector on the environment will play a key part in the government's sustainable development agenda" and went on to highlight four Cabinet approved themes relevant to the transport sector. These are:

- Increasing international connections of firms to overcome constraints of size and distance fundamental to our export competitiveness;
- Creating a world class Auckland;
- Improving the value derived from the sustainable use of management of natural resources by moving to a low greenhouse gas emissions economy; and,
- Ensuring efficient use of existing transport infrastructure and high quality investment in transport.

Travel demand management principles, as set out in this draft manual, will significantly contribute to these last two themes and is at the heart of the Minister's desire to mitigate the impacts of the transport sector on the environment.

Implementing travel demand management across Transit's business will be central to Transit's contribution to lowering the CO₂ emissions from transport, increasing the efficiency of existing transport infrastructure and ensuring we are investing in infrastructure that promotes and supports sustainability.

More innovative solutions

Much of the current transport debate is centred round the best way to tackle the transport issues facing nearly every country. Climate change has ensured that even where congestion is not a problem, transport is. The general acceptance is we cannot build our way into the future and smarter more innovative travel and transport options are needed.

Sustainable travel behaviour

Attempting to manage the demand for travel is about identifying and applying these smarter and more innovative travel options. The objective is to provide access and mobility essential to quality of life while reducing the reliance on the private car and supporting alternatives to travel.

It is about providing high quality transport options that contribute to economic vitality and quality of life while minimising negative impacts on social and environmental wellbeing.

Basically, the aim is to enable more sustainable travel behaviours. Appendix 2 covers in more detail the key drivers for travel demand management in New Zealand as a whole, and for Transit in particular.

2.2 KEY DELIVERY AGENCIES FOR TRAVEL DEMAND MANAGEMENT

Multi-agency approach

Travel demand management in New Zealand is not the sole responsibility of one agency, rather it is delivered by a number of organisations. The following agencies play a key role in managing travel demand. This list is not intended to be all encompassing but to give a broad overview of the principal organisations involved.

Ministry of Transport

Responsible for high level policy direction on transport matters.

Land Transport New Zealand

National co-ordinator of travel behaviour change programmes. Provides assistance, advice and funding to approved organisations to help with travel planning.

Transit New Zealand

State highway authority with responsibility for ensuring demand management is considered across all state highway works in order to meet its objective under the Land Transport Management Act to *'operate the state highway system in a way that contributes to an integrated, safe, responsive and sustainable land transport system'*. Transit also plays a role in advocating for travel demand management initiatives as a stakeholder and affected party in the strategic, statutory and non-statutory resource management process.

Regional councils	Have mandate to provide passenger transport services. Required to prepare a Regional Land Transport Strategy (RLTS) by the Land Transport Act. As part of the RLTS the regional council must include a demand management strategy that has targets and timetables appropriate for that region. Also responsible for regional policy statement which can be a key mechanism in the application of demand management principles and regional land use patterns which support such principles.
Auckland Regional Transport Authority (ARTA)	Responsible for integrated planning, funding and development of land transport in Auckland. ARTA is required to give effect to the RLTS by developing an implementation plan that sets out the activities and projects to be undertaken in the following 10 years.
Territorial authorities (TAs)	Local road controlling authorities responsible for road infrastructure and therefore provide facilities for public transport, walking and cycling. Also planning authority with central role in integrating land use planning and transport planning particularly through district plans which can be a key mechanism in ensuring the application of demand management principles. Have ability to promote travel plans through the resource management process. A TA can also hold an interest in passenger transport service provision subject to this being through a council controlled trading organisation.
Engaging with partners	Transit is committed to working in partnership with other agencies to progress and promote travel demand management principles. The objective of this collaboration is to ensure better connections between the state highway network, local networks and the community, to promote and achieve travel demand principles across the transport network, and to work towards better integration between land use planning and transport planning. Further detail of how Transit sees this collaboration being undertaken, is provided in section 3.

2.3 WHAT IS TRAVEL DEMAND MANAGEMENT FOR TRANSIT?

Definition

There are a considerable number of definitions for travel demand management that exist both within New Zealand and overseas. The definition used mainly depends on the role of demand management in the particular context and the mechanism being used to implement it. Based on the broad definition in the Austroads publication *Travel Demand Management: A Resource Book*, travel demand management in the context of Transit's business is defined as:

Any initiative that modifies travel decisions so as to reduce the negative impacts of road transport.

Traditional approach

Transit's business is to facilitate the safe and efficient movement of people and freight around the country by planning, building, maintaining and operating the state highway network. Where the network has become inefficient, for example where there is congestion, traditionally the solution has been to provide more road capacity.

Managing the state highway network today

Travel demand management is about stepping back from this approach and seeking to achieve the overall objective of mobility by improving the efficiency of the network and influencing travel, particularly where, when, how and even if travel is needed at all. It aims to give people more choice by improving and informing them of their travel options while at the same time influencing and guiding travel decisions to achieve better outcomes for society. In effect, it seeks to achieve more sustainable travel behaviour. Transit's position on managing travel demand fully supports the organisation's National State Highway Strategy in its approach to moving towards and managing the state highway network as an integral part of a land transport system catering for all modes of travel.

In practical terms, for Transit this means we are:

- a. evolving our traditional approach to state highway problems such as congestion; and
- b. participating in a wider agenda to influence travel patterns and behaviours.

In order to meet the requirements of the NZTS and LTMA as well as contribute to Transit's goals, Transit has developed the following vision for managing the demand for travel.

Vision *To contribute to creating a New Zealand that is less car dependent by ensuring Transit*

- *Caters for and supports all modes of transport*
- *Encourages the most efficient use of the state highway network*
- *Interacts with partners to achieve outcomes that make travel by modes other than the car a realistic option.*

2.4 TRANSIT'S TRAVEL DEMAND MANAGEMENT POLICY

Transit's policy on managing the demand for travel is set out overleaf and provides the overarching direction for the guidance provided in this document. In the case of any conflict or confusion between the policy and the guidelines, the policy prevails.



TRAVEL DEMAND MANAGEMENT POLICY

In order to operate the state highway system in a way that contributes to an integrated, safe, responsive and sustainable state highway network, Transit New Zealand will actively manage the demand for travel on the state highway network, seek to influence travel decisions and promote more sustainable travel behaviour, to reduce the adverse impacts of road traffic by:

- 1) Developing, implementing and promoting travel demand management measures and initiatives that:
 - a. operate to improve the efficiency and integration of the transport network while focusing on the state highway network;
 - b. encourage the use of non-car and high occupancy modes of travel;
 - c. support alternatives to travel;
 - d. encourage and assist the most cost-effective and sustainable means of transporting freight within New Zealand.
- 2) Participating in local, regional and national policy development and implementation to maximise alignment of policies and contribute to the integration of transport and land use planning.
- 3) Influencing regional and district planning and development processes at all levels to promote consistency with this policy and contribute to the integration of transport and land use planning through Resource Management processes.

Implementing measures to manage the demand for travel within the state highway will be a priority for putting this policy into practice. In these instances the specific travel demand management measures will be considered on an individual case basis to ensure they are appropriate to the local context.

In setting travel demand management in the wider land transport context, Transit will collaborate and work with other agencies and parties as appropriate in order to manage the demand for travel where benefit can be derived for the state highway network as well as the transport network as a whole.

2.5 TRANSIT'S TRAVEL DEMAND MANAGEMENT TOOLKIT

Range of initiatives

In practice there are a wide variety of initiatives that can be applied to manage travel demand. They include:

- The provision of and support for integrated multi-modal travel;
- Working with transport and planning partners to promote sustainable development;
- Using fiscal measures to generate revenue to improve network integration and travel choice;
- Applying measures that discourage particular modes of travel, for example single occupant car travel, and increase the attractiveness of alternatives; and,
- Applying technology to improve the efficiency of the network.

The toolkit of travel demand management options and how these options are inter-related is illustrated in Figure 1.

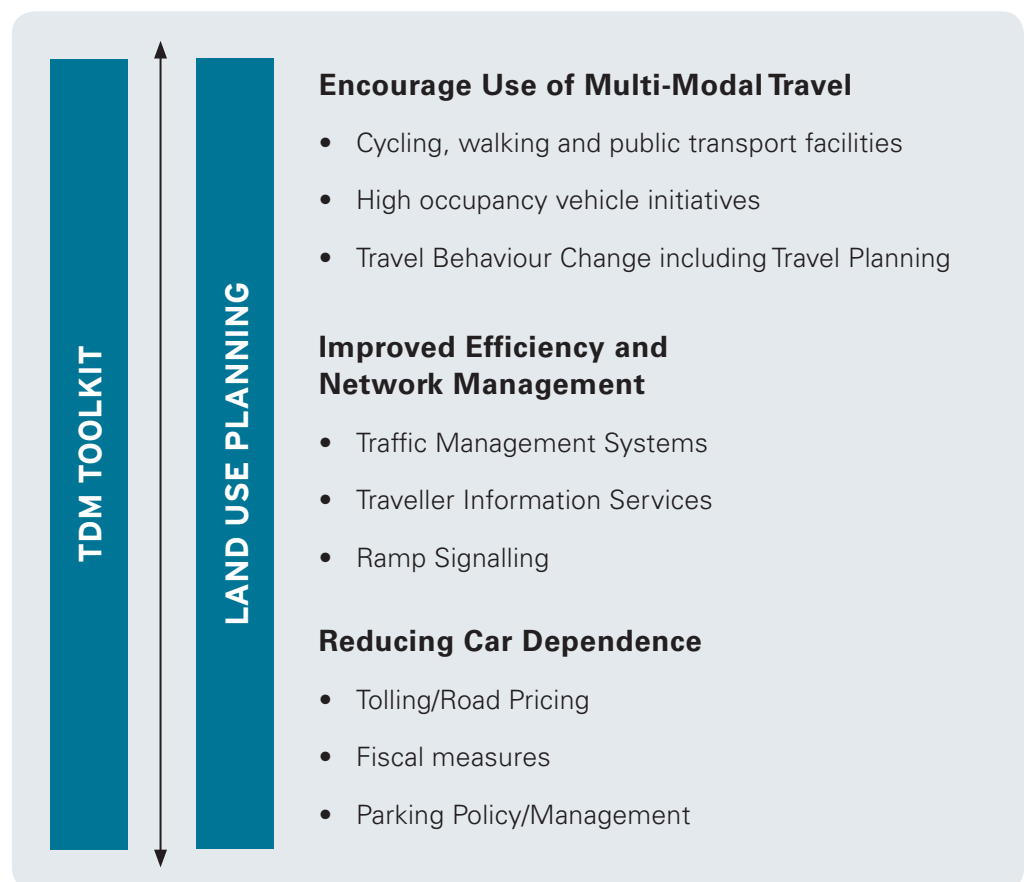


Figure 1 Travel demand management toolkit

Transit's role in TDM

Transit has two broad roles in applying this toolkit.

1. **Applying travel demand management through Transit's own projects on the state highway network**, where appropriate and as permitted by legislation. The types of initiatives that can be implemented by Transit through project delivery can be grouped under the following headings (see Figure 1 for more detail):
 - a. encouraging the use of multi-modal travel;
 - b. improving efficiency and network management; and,
 - c. reducing car dependence.
2. **Promoting and encouraging the implementation of travel demand management initiatives through the land use planning process**. In our involvement in the Resource Management process, Transit will advocate for consideration, and inclusion where appropriate, of travel demand management measures.

In applying this approach across all of its work, Transit is actively demonstrating social and environmental responsibility and at the same time contributing to an overall affordable, integrated, safe, responsive, and sustainable land transport system.

Approach dependent on context

It should be emphasised at this stage that Transit fully acknowledges that the approach taken by different organisations to manage demand is likely to vary around the country depending on the circumstances of the region or district. In addition, the role of agencies varies, as does the relevant legislation. For example, in the case of Auckland, the Auckland Regional Transport Authority (ARTA) takes on the transport role regional councils have in other areas and the Local Government Auckland Amendment Act (LG(A)AA) recognises that different circumstances here can merit a different approach.

Package approach

It is likely that most benefit will be achieved where a package of measures can be introduced. Many initiatives will operate to support and enhance the attractiveness of other measures, and so appeal to a wider audience. For instance, if parking management is introduced at the same time as bus priority, it is likely there will be more use of the enhanced bus services than if bus priority was introduced in isolation. Similarly enhanced pedestrian facilities in addition to a bus priority scheme could act as more of an incentive for public transport use by providing more attractive and direct pedestrian connections to those bus services. Wherever possible, Transit advocates that a package approach is taken to developing and implementing demand management initiatives.

Integrating land use and transport planning

Achieving integration between land use and transport planning is a vital element in achieving travel demand management objectives. Rather than applying demand management options to react to current issues on the network, integrating development and transport planning is all about the proactive and preventative approach.

Development impacts on transport networks

The process of integration requires the planning process to fully consider the impacts of development proposals on the transport network and operate to ensure those impacts are remedied, mitigated or avoided. One means of minimising impacts is to ensure a development is located and served so as to make it accessible by a number of modes of transport and therefore avoid creating more car dependence.

Mixed use development

Land use planning decisions that support more sustainable communities and lifestyles by locating different land uses close together will facilitate and support travel demand management objectives. This is achieved through reducing the need to travel, or the distance needed to travel, to access those different land uses.

Reducing the impact

In practical terms, the location, scale, density, design and mix of land use has a direct impact on the travel choices people have. It determines the distance needed to travel, and often the options available, to access the goods, services and activities required.

By successfully integrating land use planning and transport planning, for example by locating retail, employment, education and recreation opportunities close to residential areas, the outcomes should be minimising the need to travel by car as well as the distance of trips made, while increasing the choice of travel modes available.

Overall, the effects should be to reduce the negative impact of travel on environmental and social wellbeing while supporting economic objectives, and positively contributing to quality of life.

Transit's approach to integration

Transit's approach to achieving this integration is firmly based on the principle of partnership working and will primarily include engaging with regional councils and territorial authorities and ARTA in the planning process in:

- a. responding to plan changes, structure plans and resource consent applications as an affected party; and,
- b. participating in local and regional policy and strategy development. This would cover such documents as regional policy statements, regional growth strategies, district plans, regional land transport strategies, regional passenger transport plans and parking policies and strategies.

For guidance on any aspect of delivering integrated planning, reference should be made to Transit's Planning Policy Manual (PPM).

2.6 PRACTICAL APPLICATION OF TRAVEL DEMAND MANAGEMENT

Cost-effectiveness

In including measures to manage the demand for travel within a project Transit must ensure that the objectives the measure will contribute to, and the benefits that will be derived, represent cost effectiveness. Ultimately, this decision is likely to be made at the funding stage when each project needs to meet the requirements of Land Transport New Zealand in order to secure funding.

Package approach

While individually, measures to manage the demand for travel can have an impact in meeting project objectives, greater success will be achieved where a package of measures are applied. For example, a scheme involving bus priority, with cycle and pedestrian facilities linked to traveller information provision is likely to have a greater impact than the sum of its individual components. Similarly integrating transport planning with land use planning will ensure greater value from schemes such as this. For example, locating a multi-modal transport hub in a growth node or town centre with high residential densities and or employment centres.



2.7 RELATIONSHIP WITH OTHER TRANSIT AND EXTERNAL DOCUMENTS

Transit produces a number of documents that give direction to, or specifically define the activities to be undertaken by the organisation. Figure 2 shows the inter-relationship between legislation and policy and Transit's various documents. Other key documents produced by external organisations, such as regional land transport strategies also feed into the Transit planning process. This Travel Demand Management Manual is one of the "Key Issue Plans" along with documents such as the Safety Plan, the Planning Policy Manual and the Environmental Plan.

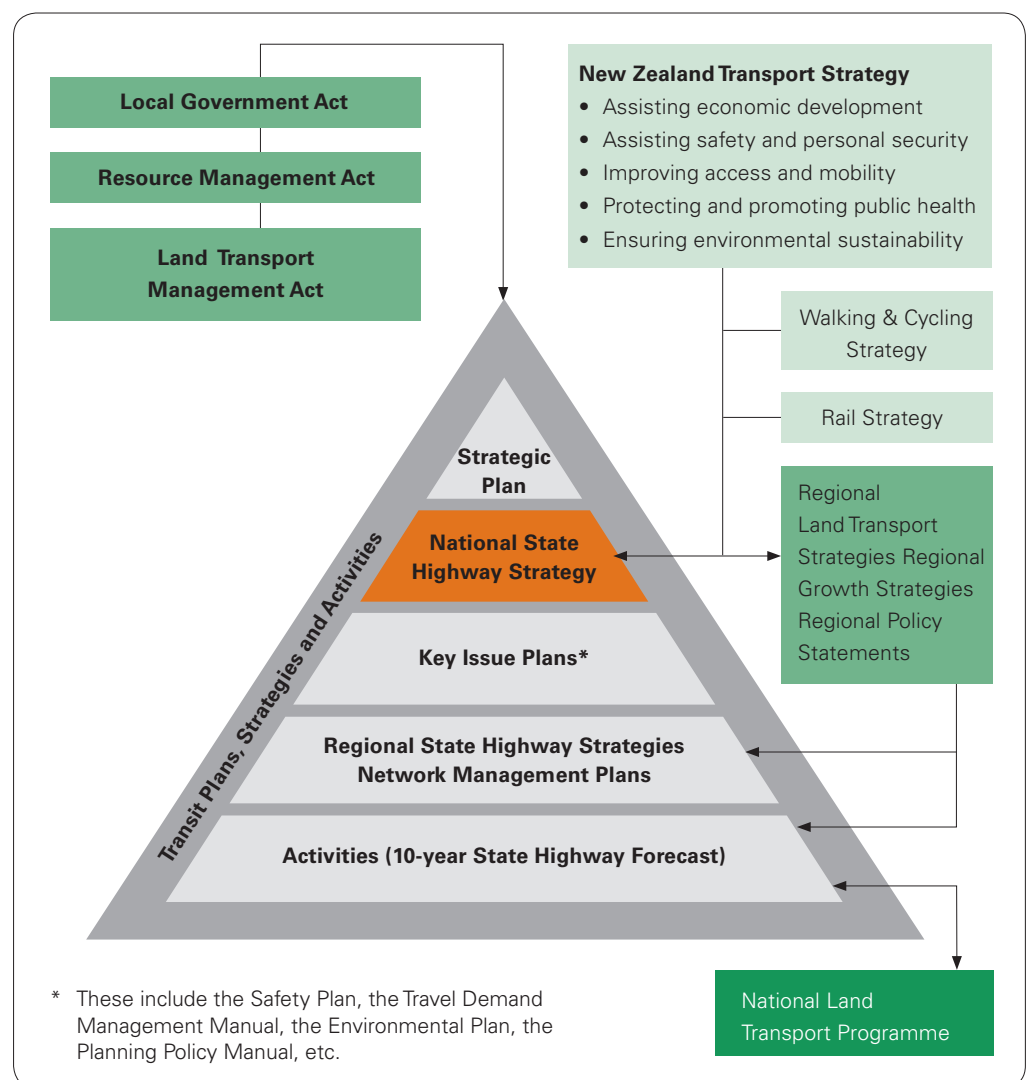


Figure 2 Relationship between the legislation and government policies and Transit's plans, strategies and activities

Strategic Plan

Transit's Strategic Plan sets out the organisation's overall vision for the state highway network. The plan defines a number of strategic goals and objectives that help translate the vision into practical action across Transit's key result areas.

National State Highway Strategy

The National State Highway Strategy (NSHS) articulates Transit's high level response to the New Zealand Transport Strategy (NZTS). It is the link between Transit's Strategic Plan and the Land Transport Programme and 10-Year Financial Forecast (LTP) and sets out how Transit will manage the state highway system as an integral part of a multi-modal land transport system.

The NSHS also introduces a new state highway categorisation system. At the heart of this is the recognition that not all state highways perform the same function and therefore it may be appropriate to plan and manage them in different ways to reflect these different functions. Three functions have been identified: national, regional and sub-regional. A second element to this categorisation is the environment the state highway passes through. Again, three types of environment have been identified: urban, peri-urban and rural. For more detail on each type of category, reference should be made to the NSHS. Where appropriate the guidance provided in this manual is related to this state highway categorisation system.

The NSHS aims for managing demand are to:

- Ensure the most efficient use of our state highway network; and,
- Improve travel choice and manage the network to reduce the rate of traffic growth and the associated adverse impacts of road traffic.

This manual will be a main driver in delivering the TDM component of the NSHS.

Statement of Intent

Transit's annual Statement of Intent (SOI) takes the Strategic Plan and National State Highway Strategy and sets out the range of activities that are to be undertaken by Transit as agreed with the Minister of Transport. This includes travel demand management activities that influence decisions being made by the other agencies, authorities and the public, and traffic management initiatives.

Land Transport Programme and 10-year Financial Forecast

The Land Transport Programme and 10-year Financial Forecast (LTP) (known as the State Highway Forecast) sets out the construction projects and strategic studies planned for the next 10 years. This manual will enable full consideration of travel demand management measures when developing state highway projects for the LTP.

Planning Policy Manual

The Planning Policy Manual (PPM), one of Transit's key issues plans, sets out the organisation's approach to achieving integration between land use and transport planning. Travel demand management is an integral part of achieving this and a number of policies and methods in the PPM refer to this document for detail and vice versa.

External documents

The approach to TDM set out in this manual, provides practical guidance to Transit staff in contributing to the development of a range of external strategies and policies including Regional Growth Strategies, Regional Policy Statements and district plans. It will enable Transit to support Regional Land Transport Strategies (RLTS) and in particular, regional demand management strategies which form a statutory component of the RLTS.